Reforming Rural and Urban Food Distribution Systems In Costa Rica: Progress and Challenges 30 Years Later

Objectives

• Review Original Problems & Diagnostic Research/Extension Efforts
• Identify Actions Taken & Follow-up Dynamics
• Discuss Current Food Distribution Forces & Changes in Costa Rica
• Place CR Marketing Changes in Context of Change in Other Countries
• Highlight Important Future Research & Policy Extension Issues
• Point out Key Sources of Information on Food Distribution
Milestones in PIMA’s Early Development

- Municipal Development Institute (IFAM) Established 1970
- 1972 PIMA (Integrated Program of Agricultural Marketing) Set Up
- IFAM and Ministry of Agriculture Join Forces to Provide PIMA Staff
- MSU Ag. Econ. Group Assists Over First 5 Years 1972/78
- Weber/Baucom in Residence-Riley/Harrison/Shaffer Backup
- PIMA Becomes a Permanent Govt. Program in 1979

Milestones in PIMA’s Early Development - Con’t

- Involvement of Ministry of Agriculture & Central Bank
  To Gain Linkage of Urban & Rural Perspectives/Interests
- Dynamic & Senior Costa Rican Leadership
- 3 Costa Rican MS Students at MSU over 1975-1985 Period
- Technical Assistance from Spain and Israel After CENADA Built
- Persistence Was Maintained & Seems To Have Paid Off—But Often Takes Longer to Do Things Than Anticipated- 8 Years from Feasibility Study to Opening of CENADA
I. Performance- Summary of Findings from MSU Latin American Research in late 1960’s & early 1970’s

A. Results for Consumers
   1. Poor consumers pay more for food
   2. Quality of products was generally lower for lower income consumers
   3. Location convenience was important for retailing services
   4. Retail sales on credit were only a minor factor in store choice

B. Food Retailing and Wholesaling
   1. Gross margins at retail and wholesale were generally comparable
      (normally expect wholesale to be lower-some possible factors for this)
      a. costs and risks were high
      b. losses were high
      c. weak competition
   2. In general, profits were not found to be excessive
   3. Economic efficiency measures (higher productivity in labor and capital)
      tended to increase as volume increased for personal service retailers
   4. An extra link in the food distribution system serving small retailers
   5. Wholesalers & retailers operate with passive selling, active buying orientation
   6. Supermarkets and self-service stores are sources of competitive pressures

II. Challenges (mid-1970’s) Urban Food Dist. System Reform

A. Reform the urban retail/wholesale systems
   1. Get reasonable variety and assortment of food products in stores
   2. Combine with lower prices for large masses of consumers
      (not just high end consumers)
   3. How to get location convenience in retail options for consumers

B. Designing and evaluating urban wholesale market reforms
   1. Interest in urban food reform related to wholesale markets. Why?
      a. urban bias and urban renewal planning & the political process
      b. visibility of wholesale mkts/large clearing house function
      c. infrastructure bias in foreign and domestic financial sources
      d. potential role of wholesalers as channel captains in dist. chains

C. Promote improved retail/wholesale/farm linkages, not just supermarkets
D. Maintain investments and interest in complementary marketing services
   rules of the game, information systems, marketing extension services
   and training of public and private participants
Stylized Pattern of Food Retail/Wholesale Development (FAO)
(Retail and Wholesale Market Places Have Changing Roles)

IFAM Surprised By Loan Requests For New/Remodeled Municipal Markets-1973

Table 4.0 Public Food Market Loans Requested and Approved by IFAM—June, 1973

<table>
<thead>
<tr>
<th>County</th>
<th>Type of Project</th>
<th>Total Project Cost (Colones)</th>
<th>Amount of IF Loan Approval or Requests</th>
</tr>
</thead>
<tbody>
<tr>
<td>Orocua (31,806)</td>
<td>New public market</td>
<td>$3,853,969</td>
<td>$2,300,000</td>
</tr>
<tr>
<td>San Carlos (54,912)</td>
<td>New public market</td>
<td>$2,620,700</td>
<td>$1,880,000</td>
</tr>
<tr>
<td>Naranjo (19,721)</td>
<td>Remodeling of market and bus station</td>
<td>$1,697,905</td>
<td>$636,600</td>
</tr>
<tr>
<td>Aguirre (14,473)</td>
<td>New public market</td>
<td>unknown</td>
<td>$425,000</td>
</tr>
<tr>
<td>Coto Brus (19,971)</td>
<td>New public market</td>
<td>unknown</td>
<td>unknown</td>
</tr>
<tr>
<td>Limon (40,850)</td>
<td>Feasibility study to remodel public market</td>
<td>---</td>
<td>$100,000</td>
</tr>
<tr>
<td>Nicoya (37,185)</td>
<td>New public market</td>
<td>unknown</td>
<td>$500,000</td>
</tr>
<tr>
<td>Perez Zeledon (San Isidro) (67,089)</td>
<td>Feasibility study of new public market</td>
<td>unknown</td>
<td>$100,000</td>
</tr>
<tr>
<td>Puriscal (24,150)</td>
<td>Remodeling of public market</td>
<td>unknown</td>
<td>$225,000</td>
</tr>
<tr>
<td>Golfito (43,510)</td>
<td>Feasibility study on new market and bus station</td>
<td>unknown</td>
<td>$200,000</td>
</tr>
</tbody>
</table>

Sources: IFAM Internal Memorandum.
Trying To Help Focus on The Client’s Felt Need While Exploring Related Problems

Municipalities in Costa Rica Where Market Feasibility Studies Were Done
Naranjo County

Naranjo City-County Seat Market

Rural Food Retail Store

Naranjo Rural Areas/Bus Routes & Rural Food Retailers

Naranjo County Seat Cash/Carry Food Wholesaler

Channel Map of Naranjo County Food Distribution Participants

Naranjo Municipal Market-1972-Not Enough Commercial Space?

Market Vendor Inside Mkt.-1972

Poor Traffic Flow Inside Municipal Mkt-1972

Inside Mkt-Poor Vertical Utilization By Vendors

Original Proposal for a New Naranjo Municipal Market
Proposed Market and Traffic Flow Layout for Remodeling

Proposed Bus Stop and Market Remodeling

Ideas for Proposed Vendor Display & Sales Areas

What Not To Do!

Recommended Renovations For FFV Display and Sales Areas of Naranjo Market to Utilize Vertical Space and Facilitate Consumer Access

What Not To Do!
Naranjo Market & Bus Stop As Remodeled & As It Appeared in March-2002

Improved Consumer Traffic

New Vendor Display and Sales Areas

Supermarket in Naranjo Opposite the Municipal Market –FFV Market Shares Still Modest-but Growing

Another FFY Vendors inside Renovated Municipal Market of Naranjo
What Happened To Rural Retail Food Supply System Needs?
Costa Rican Experience With Neighborhood Food Retailer Chains

Grecia Retailer Chain-1974

Retailer Chains 35th Year Anniversary

http://www.csu.co.cr/cadenas/masxmenos/sanjose.html

1964 First Retailer Cooperative Chain Study Tour To Puerto Rico Funded By USAID

The Cadena de Detallista in San Jose – An Active Coordinator in the System

San Jose Retailer Chain Wholesale Cash & Carry Warehouse in 1974

San Jose Neighborhood Retailer (Member of San Jose Chain)
Naranjo Retailer Chain As It Appeared in March 2002

1974 PIMA Study Recommended Establishment of A Retailer Chain for Naranjo

Established Sometime in Late 1970’s

Naranjo Retailer Chain 25+Members
Provides Full Line of Basic Food Products (non-perishible), Credit, Order filling, Delivery and Related Assistance

PIMA Recommendations For Other County Seat Towns

Wholesale Warehouse in San Isidro-2002

Rural Retailer Chain For This Region Established 100+ Members in 2002

Retailer Picking Up Order

San Isidro Municipal Market Before-1974

After 1 Way Streets and No Parking Enforcement -1974
Concerns of Municipal Governments in the San Jose Metropolitan Area: Traffic Congestion/Urban Renewal In Key Food Retail and Wholesale Areas of the City

Major Urban Infrastructure Needs
Downtown San Jose-Wholesale Market & Surrounding Street/Warehouse Congestion
Studies Done to Focus on the San Jose Metro Area Wholesale/Retail Marketing & Infrastructure Needs

But Linking Back to Rural Assembly/Production Coordination Issues

New CENADA Wholesale Market Location in Heredia
-Opened in 1981
New CENADA Wholesale Market Facilities (March 2002)

- Wholesale Fresh Fish Market Building
- Ample Truck & Merchant Operating Space/Facilities
- Greatly Improved Sanitation

Innovative Services-Grain Trading Floor & Electronic BOLPRO

- Fruit Ripening Rooms with Pallet Access
PIMA- Key Services

- Wholesale Market Facilities
- Market Price and Supply Information-Collect and Diffuse
- Marketing Extension to Improve Quality and Production Coordination
- Farmer Market Organization
- Cold Storage
PIMA (Integrated Program of Agricultural Marketing) Services

- Price Bulletins
- Directory of Marketing Agents
- Seasonal Indices
- Transactions
- What is PIMA
- FFV Marketing Manual
- Consumption Trends
- Marketing Calendars
- Conferences

Que Sabemos Sobre Acerca de las Frutas y Hortalizas

Comercialización Horticola en Cenada

Hortalizas

- Apio Verde
- Lechuga Americana
- Remolacha
- Zanahoria
- Chile Dulce
- Papa
- Brócoli

- Cilantro Castilla
- Pepino
- Tomate
- Cebolla
- Calabacín
- Plátano Verde
- Yuca Parmiguana
**Origin of products arriving at the CENADA wholesale market:**

Tomato comes mostly from the counties (cantones) of Alajuela, San Ramón, Naranjo, Grecia, Valverde Vega, Santa Barbara, Tilarán, Paraíso and Palmares.

**Basis specifications for marketing tomatoes in the CENADA market**

**Minimum Characteristics**

Tomatoes must be fresh, consistent, clean, whole, free of external humidity, free of insect damages, no severe deformations, free of foreign matters and free of rotting due to fungi and bacteria.

**Grades:***

**First:** The tomatoes must be of good quality, free of open cracks. Acceptable are slight defects of form and development, discoloration, slight skin defects, and light bruises. Maturity level between green and ripe.

**Second:** This category includes those that cannot be classified in the first category, but display the minimum characteristics. They must be firm and have no unhealed cracks. The following defects are admitted if the product maintains its essential characteristics of quality and presentation: defects of form, development and skin discoloration, defects or bruises, whenever they do not damage the fruit seriously, healed cracks of 3 cm maxima in length.

**Third:** This category includes those that cannot be classified in the higher categories, but that correspond to the second category and they can display healed cracks of more than 3 cm in length.

**Tolerances:***

**First:** 10% in number or weight of tomatoes that do not correspond to the characteristics of the category, but fit into the second category.

**Second:** 15% in number or weight of tomatoes that do not correspond to the characteristics of the category, nor to the minimum characteristics. This excludes rotten products or alterations that make them improper for consumption.

**Third:** 20% in number or weight of tomatoes that do not correspond to the characteristics of the category, nor to the minimum characteristics. This excludes rotten products or alterations that make them improper for consumption.

**Defects**

- Fruit deformed
- Mechanical damage
- Rotted
- Fungus

**Classification according to weight:**

<table>
<thead>
<tr>
<th>Category</th>
<th>Weight Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>First</td>
<td>180 g to 265 g</td>
</tr>
<tr>
<td>Second</td>
<td>68 g to 114 g</td>
</tr>
<tr>
<td>Third</td>
<td>77 g</td>
</tr>
</tbody>
</table>

**Marketing unit at the wholesale level:**

The marketing container is the plastic box. It holds 68 to 100 first class tomatoes, 175 to 198 second class fruits and 265 tomatoes of third class. Presents a gross weight average of 19 kg.

**Patterns of behavior of monthly price and quantity supplied:** Interpretation.

Through a graph of the annual behavior of prices and quantity supplied it is possible to appreciate in which time of the year prices are normally higher or there is greater or smaller amounts of the product in the market.

**Chemical Composition per 100 g of edible portion**

<table>
<thead>
<tr>
<th>Product</th>
<th>Energy (calories)</th>
<th>Protein (g)</th>
<th>Fat (g)</th>
<th>Carbohydrates (g)</th>
<th>Fiber (g)</th>
<th>Calcium (mg)</th>
<th>Phosphorus (mg)</th>
<th>Magnesium (mg)</th>
<th>Vitamin A (mcg)</th>
<th>Thiamine (mg)</th>
<th>Riboflavin (mg)</th>
<th>Niacin (mg)</th>
<th>Ascorbic acid (mg)</th>
<th>Non-comestible (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tomato</td>
<td>21</td>
<td>93.8</td>
<td>0.8</td>
<td>0.3</td>
<td>4.6</td>
<td>0.6</td>
<td>0.5</td>
<td>7</td>
<td>24</td>
<td>0.6</td>
<td>0.06</td>
<td>0.7</td>
<td>23</td>
<td>2</td>
</tr>
</tbody>
</table>

Supermarket Growth in Costa Rica

High End Store Format

Middle Income Neighborhood Store Format

<table>
<thead>
<tr>
<th>Año</th>
<th>Cantidad de Puntos de Venta</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>0</td>
</tr>
<tr>
<td>1962</td>
<td>50</td>
</tr>
<tr>
<td>1964</td>
<td>100</td>
</tr>
<tr>
<td>1966</td>
<td>150</td>
</tr>
<tr>
<td>1968</td>
<td>200</td>
</tr>
<tr>
<td>1970</td>
<td>250</td>
</tr>
<tr>
<td>1972</td>
<td>300</td>
</tr>
<tr>
<td>1974</td>
<td>350</td>
</tr>
<tr>
<td>1976</td>
<td>400</td>
</tr>
<tr>
<td>1978</td>
<td>450</td>
</tr>
<tr>
<td>1980</td>
<td>500</td>
</tr>
<tr>
<td>1982</td>
<td>550</td>
</tr>
<tr>
<td>1984</td>
<td>600</td>
</tr>
<tr>
<td>1986</td>
<td>650</td>
</tr>
<tr>
<td>1988</td>
<td>700</td>
</tr>
</tbody>
</table>

Tres cuartas partes de las ventas se producirán fuera de Costa Rica y habrá 322 puntos de venta en 7 países diferentes.

Se extienden los horarios hasta la media noche.
From Berdegue et. al. *The Rise of Supermarkets in Central America: Implications for Private Standards for Quality and Safety of Fresh Fruits and Vegetables*:

Table. *Supermarkets and the Central American fresh fruit and vegetable domestic markets*

<table>
<thead>
<tr>
<th>Country</th>
<th>Number of supermarket stores</th>
<th>Value of domestic food market million $</th>
<th>Value of domestic FFV market million $</th>
<th>Value of FFV exports million $</th>
<th>Supermarket share of food market, by value %</th>
<th>Supermarket share of FFV market, by value %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Costa Rica</td>
<td>227</td>
<td>217</td>
<td>5,495</td>
<td>4,753</td>
<td>559</td>
<td>570</td>
</tr>
<tr>
<td>Guatemala</td>
<td>132</td>
<td>98</td>
<td>7,300</td>
<td>6,600</td>
<td>292</td>
<td>264</td>
</tr>
<tr>
<td>El Salvador</td>
<td>130</td>
<td>125</td>
<td>5,200</td>
<td>4,576</td>
<td>520</td>
<td>458</td>
</tr>
<tr>
<td>Honduras</td>
<td>37</td>
<td>15</td>
<td>2,360</td>
<td>1,912</td>
<td>236</td>
<td>191</td>
</tr>
<tr>
<td>Nicaragua</td>
<td>43</td>
<td>22</td>
<td>720</td>
<td>658</td>
<td>72</td>
<td>66</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td>568</td>
<td>477</td>
<td>21,075</td>
<td>18,499</td>
<td>1,679</td>
<td>1,549</td>
</tr>
</tbody>
</table>

Supermarket Share of FFV Still Relatively Limited in Central America!

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CENADA Facilities and PIMA Market Facilitating Services

Powerful Combination To Improve Marketing-Wholesaling Especially & The Price Discovery Process and Trader/Farmer Education for Fresh Market Products

http://www.pima.go.cr/
CNP-Old Costa Rican Grain Board Becomes Provider of Information—Reinforces PIMA and CENADA

http://www.mercanet.cnp.go.cr/default.htm

¿Qué es Mercanet? Es un sistema integrado de información de mercados, comercialización, agroindustria y calidad agrícola orientado al Sector Agropecuario Costarricense.

- Market Information & Analysis
- Virtual Markets
- Bolpro-La Bolsa de Productos Agropecuarios
- Facilitating Trade Environmnetal Services and Products

http://www.mercanet.cnp.go.cr/SIM/SIM.htm

http://www.trade-exchange.biz/tradex_sp/bolpro/vista_global.shtml


San Jose Chain
I'm Part of The Retailer Force -186 Stores

Phone Order Taking
Retailer Merchandising Advice

Cash & Carry As Well as Store Delivery
Key Dimensions to the Rapid Innovation & Growth in Food Retailing/Wholesaling in Costa Rica in Past 10-15 Years

- 2 Innovative Supermarket Groups in Costa Rica Grow Rapidly in Domestic & Central American Market. 2001 CSU Alliance with Fraga/Ahold

- In F & V Areas Each Group Works With or Sets Up a Full Service Specialized Wholesaler to Facilitate/Coordinate Linkages to Retail & Farm

- Competitive Pressures To Relate To Farmers and To Expand Production of Needed Fruits and Vegetables For Target Markets-Role of CENADA/PIMA?

- What (Who) Are The Target Markets? How To Balance Pressure to Innovate And Pressure For Regulation of Competition and Growth? (Example of WalMex Bodega Stores in Mexico and Todo Dia Stores in Brazil)
  [link](http://www.mindfully.org/WTO/Wal-Mart-Dominate-Brazil.htm)

CENADA and PIMA’s New Challenges

- Strengthening Services and Linkages to Farmers (Mercados de Acopio) Without Getting Caught By The “Infrastructure Bias”

- Identifying Marketing Services & Information/Analysis That Facilitates Further Private Sector Development

- What To Do To Enhance Competition Among Growing Retail Giants?

- Maintaining Competitive Warehouse Rental Rates & Services

- Through-Put Volume of Product In CENADA May Be Flat/Declining?

- How To Help Different Farmers Grow For Emerging Markets

- Complementing The Enormous Changes in Private Supermarket Sector Alliance of (CSU, Fraga and Ahold)

What Happens When WalMex Comes to Costa Rica?

[link](http://www.csu.co.cr/)

[link](http://www.walmartmexico.com.mx/)
Taking Advantage of Sources of Information on Retail & Wholesale Market and Marketing Development

• World Union of Wholesale Markets: http://www.wuwm.org/
• FAO Marketing Infrastructure: http://www.fao.org/waicent/faoinfo/agricult/ags/AGSM/infrastr.htm#retail
• TerminalMarkets.com http://www.terminalmarkets.com/markets.htm
• Fresh Produce Marketing Reform in South Africa: http://dms.namc.co.za/ShowPublished.php?ALL
• Contract Farming in Asia-FAO: http://www.fao.org/ag/magazine/spot2.htm
• Marketing Extension Materials FAO, MSU, Others
• AgriBuz Markets and Analysis: http://www.agribiz.com/markets.html
• Race To The Top: (British effort to track supermarket progress on fairness and environmental commitments) http://www.racetothetop.org/documents/aboutrttt.htm
• Supermarkets and Agrifood Systems: Latin American Challenges Development Policy Review vol 20 no 4 September 2002
Guest editors: Thomas Reardon and Julio A. Berdegué http://www.odi.org.uk/publications/dpr/theme.html

Not Enough Time To Rest—Too Many Important & Interesting Topics To Work On!